Title (en)

MONOLITIC INPUT STAGE FOR AN OPTICAL RECEIVER

Publication

EP 0073889 A3 19850814 (DE)

Application

EP 82105539 A 19820624

Priority

DE 3135462 A 19810908

Abstract (en)

[origin: US4490735A] The present invention relates to a monolithically designed input stage for an optical receiver, the input stage comprising a PIN (more specifically a PNIN) photodiode and a connected field effect transistor. The photodiode, which includes an absorption zone of GaInAsP for the optical radiation and a pn-junction formed by InP layers, is disposed together with the field effect transistor on a common semi-insulating InP substrate.

IPC 1-7

H01L 27/14; H01L 31/10

IPC 8 full level

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CPC (source: EP US)

H01L 27/1443 (2013.01 - EP US); **H01L 31/105** (2013.01 - EP US); **H01L 31/109** (2013.01 - EP US)

Citation (search report)

- [A] US 3761326 A 19730925 - WECKLER G
- [A] PATENTS ABSTRACTS OF JAPAN, Band 5, Nr. 145 (E-74)[817], 12. September 1981; & JP - A - 56 80 179 (NIPPON DENKI K.K.) 01-07-1981
- [A] ELECTRONICS LETTERS, Band 16, Nr. 23, 6. November 1980, Seiten 893-895, London, GB; F. CAPASSO u.a.: "InGaAsP/InGaAs heterojunction p-i-n detectors with low dark current and small capacitance for 1.3-1.6 mum fibre optic systems
- [A] ELECTRONICS LETTERS, Band 16, Nr. 10, 8. Mai 1980, Seiten 353-355, London, GB; R.F. LEHENY u.a.: "Integrated In0.53Ga0.47As p-i-n F.E.T. photoreceiver"
- [A] ELECTRONICS LETTERS, Band 15, Nr. 20, 27. September 1979, Seiten 655-657, London, GB; C. BURRUS u.a.: "InGaAsP p-i-n photodiodes with low dark current and small capacitance"

Cited by

EP0133709A3; EP0682373A1; EP0371380A3; US5032885A; EP0162541A1; GB2228616A; GB2228616B; FR2634066A1; EP0235029A1; FR2595007A1; CN102778613A; WO8604735A1; WO8505498A1; EP3196315A1

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EP 0073889 A2 19830316; **EP 0073889 A3 19850814**; **EP 0073889 B1 19880113**; AT E31998 T1 19880115; CA 1193704 A 19850917; DE 3135462 A1 19830901; DE 3278004 D1 19880218; US 4490735 A 19841225

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